

Product datasheet for RC221369

UCP4 (SLC25A27) (NM_004277) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	UCP4 (SLC25A27) (NM_004277) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	UCP4
Synonyms:	UCP4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	<p>>RC221369 representing NM_004277</p> <p>Red=Cloning site Blue=ORF Green=Tags(s)</p>

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGTCCGTCCCGGAGGAGGAGGAGGCTTTTGCCGCTGACCCAGAGATGGCCCCGAGCGAGCAAATTC
 TACTGTCCGGCTGCGCGGCTACCGTGGCCGAGCTAGCAACCTTTCCCTGGATCTCACAAAACCTCGACT
 CCAAATGCAAGGAGAAGCAGCTCTTGCTCGGTTGGGAGACGGTCAAGAGAATCTGCCCCCTATAGGGGA
 ATGGTGCACAGCCCTAGGGATCATTGAAGAGGAAGGCTTTCTAAAGCTTTGGCAAGGAGTGACACCCG
 CCATTTACAGACACGTAGTGTATTCTGGAGGTGAATGGTCACATATGAACATCTCCGAGAGGTTGTGTT
 TGGCAAAAGTGAAGATGAGCATTATCCCTTTGGAAATCAGTCATTGGAGGGATGATGGCTGGTGTATT
 GGCCAGTTTTAGCCAATCCAACCTGACCTAGTGAAGGTTGAGATGCAAAATGGAAGGAAAAAGGAACTGG
 AAGGAAAACCATTCGATTTCTGGGTGTACATCATGCAATTTGCAAAAATCTTAGCTGAAGGAGGAATACG
 AGGGCTTTGGGCAGGCTGGGTACCAATATACAAAGAGCAGCACTGGTGAATATGGGAGATTTAACCCT
 TATGATACAGTGAACACTACTTGGTATTGAATACCACTTGAGGACAATATCATGACTCACGTTTAT
 CAAGTTTATGTTCTGGACTGGTAGCTTCTATTCTGGGAACACCAGCCGATGTCATCAAAAGCAGAATAAT
 GAATCAACCACGAGATAAACAAGGAAGGGGACTTTTGTATAAATCATCGACTGACTGCTTGATTACGGCT
 GTTCAAGGTGAAGGATTCATGAGTCTATATAAAGGCTTTTACCATCTTGCTGAGAATGACCCCTTGGT
 CAATGGTGTCTGGCTTACTTATGAAAAATCAGAGAGATGAGTGGAGTCAGTCCATT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC221369 representing NM_004277
 Red=Cloning site Green=Tags(s)

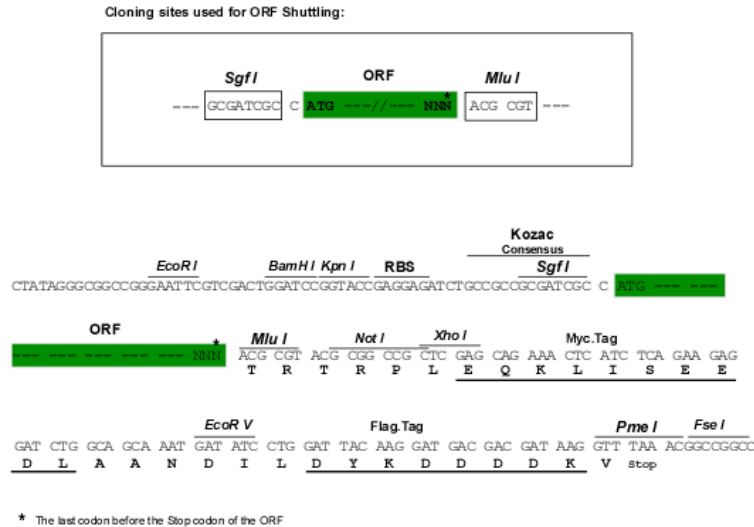
MSVPEEEERLLPLTQRWPRASKFLLSGCAATVAELATFPLDLTKTRLQMGEAALARLGDGARESAFYRG
 MVRTALGIIIEEGFLKLWQGVTPAIYRHVVYSGGRMVYEHLEVVFGKSEDEHYPLWKSIVGGMMAGVI
 GQFLANPTDLVKVQMMEGKRKLEKPLRFRGVHFAKILAEGGIRGLWAGWVPNIQRAALVNMGDLTT
 YDTVKHVYLVNTPLEDNIMTHGLSSLCGLVASILGTPADVIKSRIMNQPRDKQGRGLLYKSSDCLIQ
 VQGEGLMSLYKGFLPSWLRMTWPMSVFWLTYEKIREMSGVSPF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6479_c08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004277

ORF Size: 969 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_004277.3](#), [NP_004268.3](#)

RefSeq Size: 2959 bp

RefSeq ORF: 972 bp

Locus ID: 9481

UniProt ID: [O95847](#)

Cytogenetics: 6p12.3

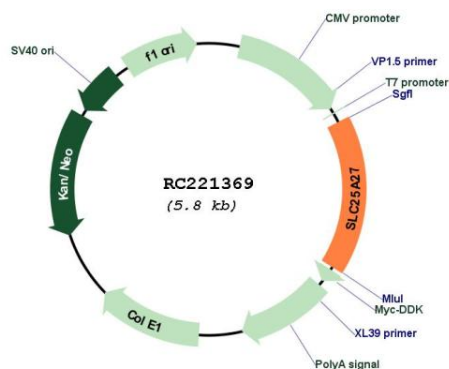
Domains: mito_carr

Protein Families: Druggable Genome

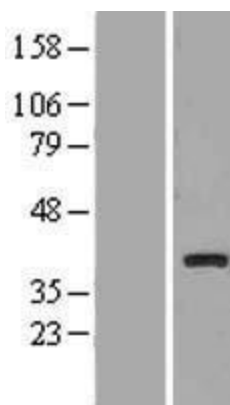
MW: 35.9 kDa

Gene Summary: Mitochondrial uncoupling proteins (UCP) are members of the larger family of mitochondrial anion carrier proteins (MACP). UCPs separate oxidative phosphorylation from ATP synthesis with energy dissipated as heat, also referred to as the mitochondrial proton leak. UCPs facilitate the transfer of anions from the inner to the outer mitochondrial membrane and the return transfer of protons from the outer to the inner mitochondrial membrane. They also reduce the mitochondrial membrane potential in mammalian cells. Tissue specificity occurs for the different UCPs and the exact methods of how UCPs transfer H⁺/OH⁻ are not known. UCPs contain the three homologous protein domains of MACPs. Transcripts of this gene are only detected in brain tissue and are specifically modulated by various environmental conditions. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Feb 2011]

Product images:



Circular map for RC221369



Western blot validation of overexpression lysate (Cat# [LY418093]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221369 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).